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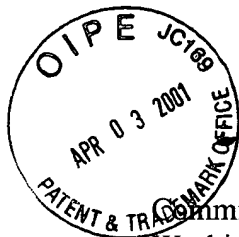
IN RE APPLICATION OF:

**Dr. Shiyou Li**

SERIAL NO. 09/696042

FILED: **October 25, 2000**

TITLE: **A SYSTEM FOR INCREASING  
THE PRODUCTION OF INDOLE  
AND QUINOLINE ALKALOIDS,  
PARTICULARLY  
CAMPTOTHECINS AND RELATED  
COMPOUNDS, FROM PLANTS**



Commissioner for Patents  
Washington, D.C. 20231

ATTY DKT NO. **44980-00005**

GROUP ART UNIT: **1614**

EXAMINER: **Unassigned**

EXPRESS MAIL CERTIFICATE (37 C.F.R. §1.10)

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Date: April 3, 2001

Melanie Reese Capps

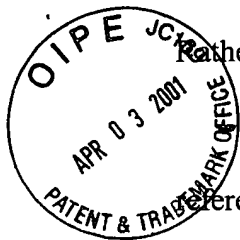
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Melanie Reese Capps  
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Dear Sir:

**INFORMATION DISCLOSURE STATEMENT**

In accordance with Applicant's duty under 37 C.F.R. § 1.56 and 1.97, Applicant hereby submits the attached form PTO-1449 (modified) which lists art cited. The art listed therein, while of some relevance, is not necessarily considered to teach or suggest any aspect of the invention described and claimed in the above-identified patent application. This statement is also not to be construed as a representation that a search has, or has not, been conducted or that no better art exists.



Rather, this statement discloses only the best art of which the Applicant is aware.

In considering the art set forth below, it may be noted by the Examiner that certain of the references may contain markings, underlinings or other notations. These markings or notations are not to be construed as drawing the Examiner's attention either to selected parts or away from other parts of the references. Any such markings were either present on the copies of the references obtained by Applicant, or were made thereon during the study of the references by the Applicant and/or his attorneys.

The Examiner is respectfully requested to consider each of the cited references, indicate such consideration by initialing each reference on the enclosed Form PTO-1449 (modified) and return a copy of the same with the next communication to the Applicant. For the convenience of the Examiner in considering the references, copies of the cited references are enclosed with this communication.

Dated: April 3, 2001

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## Induced-Trichome/Chemicals in Other Plants

- Agrawal, A.A. 1998. Induced responses to herbivory and increased plant performance. *Science* 279: 1201-1202.
- Baldwin, I.T. 1988a. The alkaloidal responses of wild tobacco to real and simulated herbivory. *Oecologia* 77: 378-381.
- Baldwin, I.T. 1988b. Damage-induced alkaloids in tobacco: pot-bound plants are not inducible. *Journal of Chemical Ecology* 14(4): 1113-1120.
- Baldwin, I.T. 1988c. Short-term damage-induced increases in tobacco alkaloids protect plants. *Oecologia* 75: 367-370.
- Baldwin, I.T. 1989. Mechanism of damage-induced alkaloid production in wild tobacco. *Journal of Chemical Ecology* 15(5): 1661-1680.
- Baldwin, I.T. 1991. Damage-induced alkaloids in wild tobacco. In *Phytochemical induction by herbivores*, pp. 47-69, eds. By D.W. Tallamy and M.J. Raupp. John Wiley & Sons, Inc., New York.
- Beier, R.C. and E.H. Oertli. 1983. Psoralen and other linear furocoumarins as phytotoxins in celery. *Phytochemistry* 22: 2595-2597.
- Bentley, N.D. Johnson, and L. Rigney. 1987. Short-term induction in leaf tissue alkaloids in lupines following experimental defoliation. *American Journal of Botany* 74:646.
- Bhaumik, C. and P.C. Datta. 1989. Hormonal effect on mentholic gland initiation. *Indian Biologist* 21(1): 55-57.
- Bosabalidis, A.M. and F. Exarchou. 1995. Effect of NAA and GA3 on leaves and glandular trichomes of *Origanum x intercedens* Rech: Morphological and anatomical features. *International Journal of Plant Science* 156(4): 488-495.
- Bryant, J.P., F.S. Chapin, and D.R. Klein. 1983. Carbon/nutrient balance of boreal plants in relation to vertebrate herbivory. *Oikos* 40:357-368.
- Cen, Y.P. and J.F. Bornman. 1993. The effects of exposure to enhanced UV-B radiation on the penetration of monochromatic and polychromatic UV-B radiation in leaves of *Brassica napus*. *Physiologia Plantarum* 87: 249-255.
- Ceska, O., S. Chaudhary, P. Warrington, G. Poulton, and M. Ashwood-Smith. 1986. Naturally-occurring crystals of photocarcinogenic furocoumarins on surface of parsnip roots sold as food. *Experientia* 42: 1302-1304.
- Chapell, J. and K. Hahlbrock. 1984. Transcription of plant defence genes in response to UV light or fungi elicitor. *Nature* 311: 76-78.
- Chapin, F.S. 1991. Integrated responses of plants to stress. *Bioscience* 41: 29-36.
- Chaves, N., J. C. Escudero, and C. Gutierrez-Merino. 1997. Role of ecological variables in the seasonal variation of flavonoid content of *Cistus ladanifer* exudate. *Journal of Chemical Ecology* 23(3): 579-603.
- Chien, J.C. and I.M. Sussex. 1996. Differential regulation of trichome formation on the adaxial and abaxial leaf surfaces by gibberellins and photoperiod in *Arabidopsis thaliana* (L.) Heynh. *Plant Physiology* 111:1321-1328.
- Coleman, J.S. and C.G. Jones. 1991. A phytocentric perspective of phytochemical induction by herbivores. In *Phytochemical induction by herbivores*, pp. 3-45, eds. By D.W. Tallamy and M.J. Raupp. John Wiley & Sons, Inc., New York.

- Croteau, R. and M.A. Johnson. 1984. Biosynthesis of terpenoids in glandular trichomes. In Rodriguez, E., P.L. Healey, and I. *Mentha* (eds.), Biology and chemistry of plant trichomes, pp. 133-185. Plenum Press, New York and London.
- Dickson, R.E. and J.G. Isebrands. 1991. Leaves as regulators of stress response. In H.A. Mooney, W.E. Winner, and E.J. Pell (eds.), Response of plants to multiple stresses, pp.3-34. Academic Press, San Diego, New York, Boston, London, Sydney, Tokyo, Toronto.
- Doss, R.T. 1984. Role of glandular scales of lepidote rhododendrons in insect resistance. *Journal of Chemical Ecology* 10(12): 1787-1798.
- El-Keltawi, N.E. and R. Croteau. 1986a. Influence of ethephon and daminozide on growth and essential oil content of peppermint and sage. *Phytochemistry* 25: 1285-1288.
- El-Keltawi, N.E. and R. Croteau. 1986b. Influence of phosfon D and cycocel on growth and essential oil content of sage and peppermint. *Phytochemistry* 25: 1603-1606.
- El-Keltawi, N.E. and R. Croteau. 1987. Influence of foliar applied cytokinins on growth and essential oil content of several members of the Lamiaceae. *Phytochemistry* 26: 891-895.
- Fowler, S.V. and J.H. Lawton. 1985. Rapidly induced defenses and talking trees: the devil's advocate position. *American Naturalist* 126: 181-195.
- Gantet, P., N. Imbault, M. Thiersault, and P. Doireau. 1998. Necessity of a functional octadecanoic pathway for indole alkaloid synthesis by *Catharanthus roseus* cell suspensions cultured in an auxin-starved medium. *Plant and Cell Physiology* 39(2): 220-225.
- Gershenzon, J., M. Maffei, R. Croteau. 1989. Biochemical and histochemical localization of monoterpene biosynthesis in the glandular trichomes of spearmint (*Mentha spicata*). *Plant Physiology* 89: 1351-1357.
- Gianfagna, T.J., C.D. Carter, and J.N. Sacalis. 1992. Temperature and photoperiod influence trichome density and sesquiterpene content of *Lycopersicon hirsutum* f. *hirsutum*. *Plant Physiology* 100: 1403-1405.
- Good, D.E. and J.C. Snyder. 1988. Seasonal variation of leaves and mite resistance of *Lycopersicon* interspecific hybrids. *Hort-Science* 23: 891-894.
- Grammatikopoulous, G. and Y. Manetas. 1994. Direct absorption of water by hairy leaves of *Phlomis fruticosa* and its contribution to drought avoidance. *Canadian Journal of Botany* 72: 1805-1811.
- Hanson, A.D. and R.E. Tully. 1979. Light stimulation of proline synthesis in water-stressed barley leaves. *Planta* 145: 45-51.
- Haslam, E. 1986. Secondary metabolism: fact and fiction. *Natural Product Reports* 3:217-249.
- Hoffman, A., C. Shock, and E. Feibert. 1999. Taxane and ABA production in yew under different soil water regimes. *HortScience* 34(5): 882-885.
- Hulskamp, M., S. Misera, and G. Jurgens. 1994. Genetic dissection of trichome cell development in *Arabidopsis*. *Cell* 76: 555-556.
- Johnson, N.D., L. Rigney, and B.L. Bentley. 1989. Short-term changes in alkaloid levels following leaf damage in lupines with and without symbiotic nitrogen fixation. *Journal of Chemical Ecology* 15: 2425-2434.

- Kangasjarvi, J., J. Talvinen, M. Utriainen, and P. Karjalainen. 1994. Plant defence systems induced by ozone. *Plant, Cell and Environment* 17: 783-794.
- Karabourniotis, G. and J.F. Bornman. 1999. Penetration of UV-A, UV-B and blue light through the leaf trichome layers of two xeromorphic plants, olive and oak, measured by optical fibre microprobes. *Physiologia Plantarum* 105: 655-661.
- Karabourniotis, G., D. Kotsabassidis, and Y. Manetas. 1995. Trichome density and its protective potential against ultraviolet-B radiation damage during leaf development. *Canadian Journal of Botany* 73: 376-383.
- Karabourniotis, G., G. Kofidis, C. Fasseas, V. Liakoura, and I. Drossopoulos. 1998. Polyphenol deposition in leaf hairs of *Olea europaea* (Oleaceae) and *Quercus ilex* (Fagaceae). *American Journal of Botany* 85(7): 1007-1012.
- Karban, R. and I.T. Baldwin. 1997. Induced responses to herbivory. The University of Chicago Press, Chicago and London.
- Keene, C.K. and G.J. Wagner. 1985. Direct demonstration of duvatrienediol biosynthesis in glandular heads of tobacco trichomes. *Plant Physiology* 79: 1026-1032.
- Kennedy, B.S., M.T. Nielsen, R.F. Severson, V.A. Sisson, M.K. Stephenson, and D.M., Jackson. 1992. Leaf surface chemicals from *Nicotiana* affecting germination of *Peronospora tabacina* (Adam) sporangia. *Journal of Chemical Ecology* 18: 1467-1479.
- Kennedy, G.G., R.T. Yamamoto, M.B. Dimock, W.G. Williams, and J. Bordner. 1981. Effect of day length and light intensity on 2-tridecanone levels and resistance in *Lycopersicon hirsutum* f. *glabratum* to *Manduca Sexta*. *Journal of Chemical Ecology* 7: 707-716.
- Kim, E. and P.G. Mahlberg. 1997. Immunochemical localization of tetrahydrocannabinol (THC) in cryofixed glandular trichomes of *Cannabis* (Cannabaceae). *American Journal of Botany* 84(3): 336-342.
- Kitch, L.W., R.E. Shade, W.E. Nyquist, and J.D. Axtell. 1985. Inheritance of density of erect glandular trichomes in the genus *Medicago*. *Crop Science* 25: 607-611.
- Larkin, J.C., N. Young, M. Prigge, and M.D. Marks. 1996. The control of trichome number and spacing in *Arabidopsis*. *Development* 122: 997-1005.
- Levin, D. A. 1973. The role of trichomes in plant defense. *The Quarterly Review of Biology* 48:3-15.
- Lyons-Johnson, D. 1999. Understanding sugar transport in plants. *Agriculture Research March*: 9.
- Marks, M.D., D.G. Oppenheimer, and E. Garon. 1996. Analysis of clonal sectors of altered epidermis on EMS treated *Arabidopsis* plants. *Weeds World* 2:1-5.
- McKey, D. 1974. Adaptive patterns in alkaloid physiology. *American Naturalist* 108: 305-320.
- Mizusaki, S., Y. Tanabe, M. Roguchi, and E. Tamaki. 1973. Changes in the activities of ornithine decarboxylase, putrescine *N*-methyltransferase and *N*-methylputrescine oxidase in tobacco roots in relation to nicotine biosynthesis. *Plant Cell Physiology* 14: 103-110.
- Mutikainen, P. and M. Walls. 1995. Growth, reproduction, and defence in nettles: Responses to herbivory modified by competition and fertilization. *Oecologia* 104(4): 487-495.

- Nagata, T., S. Todoriki, T. Hayashi, Y. Shibata, M. Mori, H. Kanegae, and S. Kikuchi. 1999.  $\gamma$ -Radiation induces leaf trichome formation in *Arabidopsis*. *Plant Physiology* 120:113-119.
- Neuvonen, S. and E. Haukioja. 1991. The effects of inducible responses in host foliage on birch feeding herbivores. In *Phytochemical induction by herbivores*, pp. 277-291, eds. By D.W. Tallamy and M.J. Raupp. John Wiley & Sons, Inc., New York
- Nitao, J.K. 1988. Artificial defoliation and furanocoumarin induction in *Pastinaca sativa* (Umbellifere). *Journal of Chemical Ecology* 14(6): 1515-1521.
- Owuor, P.O. and J.K.A. Langat. 1988. Changes in chemical composition of black tea due to pruning. *Tropical Science* 28: 127-132.
- Panagopoulos, I., J.F. Bornman, and L.O. Bjorn. 1992. Response of sugar beet plants to ultraviolet-B (280-320 nm) radiation and *Cercospora* leaf spot disease. *Physiologia Plantarum* 84: 140-145.
- Pasquali, G., O.J.M. Goddijn, A. de Waal, R. Verpoorte, R.A. Schilperoort, J.H.C. Hoge, and J. Memelink. 1992. Coordinated regulation of two indole alkaloid biosynthetic genes from *Catharanthus roseus* by auxin and elicitors.
- Perazza, D., G. Vachon, and M. Herzog. 1998. Gibberellins promote trichome formation by up-regulating GLABROUS1 in *Arabidopsis*. *Plant Physiology* 117(2): 375-383.
- Pesci, P. 1992. Effects of light on abscisic acid-induced proline accumulation in leaves: comparison between barley and wheat. *Physiologia Plantarum* 86: 209-214.
- Quarrie, S.A. and H.G. Jones. 1977. Effects of abscisic acid and water stress on development and morphology of wheat. *Journal of Experimental Botany* 28: 192-203.
- Ralphs, M.H. and C. Williams. 1988. Alkaloid response to defoliation of velvet lupine (*Lupinus leucophyllus*). *Weed Technology* 2: 429-432.
- Raven, P.H., R.F. Evert, and H. Curtis. 1981. *Biology of plants*. Pp 501-517. Worth Publishers, Inc. New York.
- Reichling, J., H. Becker, and A. Vomel. 1977. Herbizide im Kamillenanbau (*Matricaria chamomilla*). *Planta Medica* 32: 235-242.
- Roy, B.A., M.L. Stanton, and S.M. Eppley. 1999. Effects of environmental stress on leaf hair density and consequences for selection. *Journal of Evolutionary Biology* 12: 1089-1103.
- Skaltsa, H., E. Verykokidou, C. Harvala, G. Karabouniotis, and Y. Manetas. 1994. UV-B protective potential and flavonoid content of leaf hairs of *Quercus ilex*. *Phytochemistry* 37: 987-990.
- Snyder, J.C. and J.P. Hyatt. 1984. Influence of daylength on trichome densities and leaf volatiles of *Lycopersicon* species. *Plant Science Letters* 37: 177-181.
- Stahl, E. and A. Wollensah. 1986. Observations on the function of the glandular hairs of yarrow: 4<sup>th</sup> report: effects of selective herbicides on the glandular hairs and tissue of the florets. *Journal of Plant Physiology* 122: 93-96.
- Strauss, E. 1999. RNA molecules may carry long distance signals in plants. *Science* 283(5398): 12-13.
- Tiburcio, A.F., R. Kaur-Sawhney, and A.W. Galston. 1985. Correlation between polyamines and pyrrolidine alkaloids in developing tobacco callus. *Plant Physiology* 78: 323-326.

- Tingey, W.M., and J.E. Laubengayer. 1981. Defense against the green peach aphid and potato leafhopper by glandular trichomes of *Solanum berthaultii*. *Journal of Economic Entomology* 74: 721-725.
- Valentine, H.T., W.E. Wallner, and P.M. Wargo. 1983. Nutritional changes in host foliage during and after defoliation, and their relation to the weight of gypsy moth pupae. *Oecologia* 57: 298-302.
- van Dam, N.M., R. Verpoorte, and Ed van Der Meijden. 1994. Extreme differences in pyrrolizidine alkaloid levels between leaves of *Gynoglossum officinale*. *Phytochemistry* 37: 1013-1016.
- Van Sumere, C.F., H. Geiger, D. Bral, G. Fockenier, K. Vande Castele, M. Martens, R. Hanselaer, and L. Gevaert. 1983. Freeze-drying and analysis of plant and other biological material. *Analytical Biochemistry* 131: 530-532.
- Wagner, G.J. 1991. Secreting glandular trichomes: more than just hairs. *Plant Physiology* 96: 675-679.
- Wagner, M.R. and P.D. Evans. 1985. Defoliation increases nutritional quality and allelochemicals of pine seedlings. *Oecologia* 67: 235-237.
- Wellso, S.G. and R.P. Hoxie. 1982. The influence of environment on the expression of trichomes in wheat. *Crop Science* 22: 879-885.
- Wink, M. 1985. Chemical defense of lupins: biological function of quinolizidine alkaloids. *Plant Systematics and Evolution* 150: 65-81.
- Wink, M. 1987. Chemical ecology of quinolizidine alkaloids. In *Alleochemicals: Role in Agriculture and Forestry*, ed. By G.R. Waller, pp. 523-533. American Chemical Society, Washington, D.C.
- Wold, E.N. and R.J. Marquis. 1997. Induced defense in white oak: effects on herbivores and consequences for the plant. *Ecology* 78(5): 1356-1369.
- Zangerl, A.R. and F.A. Bazzaz. 1992. In *Plant resistance to herbivores and pathogens*, eds. by S. Fritz and E.L. Simms. P. 363. University of Chicago Press, Chicago.
- Ziska, L.H., A.H. Teramura, J.H. Sullivan, and A. McCoy. 1993. Influence of ultraviolet-B (UV-B) radiation on photosynthetic and growth characteristics in field-grown cassava (*Manihot esculentum* Crantz). *Plant, Cell and Environment* 16: 73-79.



## General

- Li, S.Y. and K.T. Adair. 1994. *Camptotheca acuminata* Decaisne, Xi Shu, a promising anti-cancer and anti-viral tree for the 21st century. 268 pp. A Henry M. Rockwell monograph, Stephen F. Austin State University, Nacogdoches.
- Li, S.Y. et al. 2000. Anti-cancer happytrees (*Camptotheca* Decaisne). Research Report (unpublished)

## Morphology, Taxonomy, Geography, and Ecology of *Camptotheca*

- Chen, L. J., F. H. Wang, and Y. R. Wu. 1991. The pollination biology of *Camptotheca acuminata* Decne. (Nyssaceae). *Cathaya* 3: 45-52.
- Cheng, J. Q., J. J. Liu, and P. Liu. 1992. *Woods of China*. China Forestry Press, Beijing. (Chinese)
- Decaisne, J. 1873. Characters et descriptions de trois genres nouveaux de plants recueilles en Chine par L'abbé A. David. *Bulletin de la Société Botanique de France* 20: 155-160.
- Dode, L. A. 1908. Abbores et frutices novi. *Bulletin de la Société Botanique de France* 55: 651.
- Eyde, R. H. 1963. Morphological and paleobotanical studies of the Nyssaceae. I. The modern species and their fruits. *Journal of the Arnold Arboretum* 44: 1-59.
- Fang, W. P. and T. P. Soong. 1975. Praecursores flora Nyssacearum Sinensium. *Acta Phytotaxonomy Sinica* 13: 83-89. (Chinese)
- Fang, W. P. and Z. R. Zhang (eds.). 1983. *Flora Reipublicae Popularis Sinicae*, Vol. 52(2). Science Press, Beijing. (in Chinese)
- Li, S. Y. 1997. *Camptotheca lowreyana*, a new species of anti-cancer happytrees. *Bulletin of Botanical Research* 17(3): 348-352.
- Luo, L. C. 1989. *Woods of economic trees in Yunnan*. Yunnan People Press, Kunming. (in Chinese)
- Manchester, S. R., P. R. Crane, and L. B. Golovneva. 1999. An extinct genus with affinities to extant *Davidia* and *Camptotheca* (Cornales) from the Paleocene of North America and eastern Asia. *International Journal of Plant Science* 160(1): 188-207.
- Metcalf, C. R. and L. Chalk. 1957. *Anatomy of the dicotyledons*. Vol. 2. Oxford: Clarendon Press.
- Sohma, K. 1963. Pollen morphology of the Nyssaceae, I. *Nyssa* and *Camptotheca*. *Scientific Reports of Tohoku University Series IV (Biology)* 29: 389-392.
- Suzuki, M. 1976. Two new species of nyssaceous fossil woods from the palaeogene of Japan. *Journal of Japanese Botany* 50: 228-238.
- Tanai, T. 1977. Fossil leaves of the Nyssaceae from the Miocene of Japan. *Journal of Faculty of Science Hokkaido University IV. Geology and Mineralogy* 17: 505-516.
- Yang, B. M. and L. D. Duan. 1988. One new plant of Nyssaceae from Hunan. *Natural Science Journal of Hunan Normal University* 11: 63-64. (Chinese)
- Ying, T. S. Y. L. Zhang, and D. E. Boufford. 1993. The endemic genera of seed plants of China. Beijing: Science Press.
- Zhang, R. H. et al. 1993. *Morphology of major tree seedlings of China*. Science Press, Beijing (Chinese).

## CPT Analysis of *Camptotheca*

- Adamovics, J.A., J.A. Cina, and R. Hutchinson. 1979. Minor alkaloids of *Camptotheca acuminata*. *Phytochemistry* 18: 1085-1086.
- Buta, J.G. and M.J. Novak. 1978. Isolation of camptothecin and 10-methoxycamptothecin from *Camptotheca acuminata* by gel permeation chromatography. *Ind. Eng. Chem. Prod. Res. Dev.* 17(2):160-161.
- Hsu, J.S., T.Y. Chao, L.T. Lin, and C.F. Hsu. 1977. Chemical constituents of the anticancer plant *Camptotheca acuminata* Decne. II. Chemical constituents of the fruits of *Camptotheca acuminata* Decne. *Acta Chimica Sinica* 35: 193-200.
- Lin, L.Z. and G.A. Cordell. 1989. Quinoline alkaloids from *Camptotheca acuminata*. *Phytochemistry* 28(4): 1295-1297.
- Lin, L.Z. and G.A. Cordell. 1990. 19-O-methylangustoline from *Camptotheca acuminata*. *Phytochemistry* 29(8): 2744-2746.
- Tien, H.J., J.M. Tien, M.Y. Yeh, T.S. Wu, and C.M. Huang. 1977. Studies on the constituents of *Camptotheca acuminata* Decne (I). The constituents of leaves. *Chemistry* 1977(2): 51-54.
- Wall, M.E., M.C. Wani, C.E. Cook, K.H. Palmer, A.T. McPhail, and G.A. Sim. 1966. Plant antitumor agents. I. The isolation and structure of Camptothecin, a novel alkaloidal leukemia and tumor inhibitor from *Camptotheca acuminata*. *Journal of American Chemical Society* 88: 3888-3890.
- Wani, M.C. and M.E. Wall. 1969. Plant anti-tumor agents. II. The structure of two new alkaloids from *Camptotheca acuminata*. *The Journal of Organic Chemistry* 34(5):1364-1367.

## Plant Physiology of *Camptotheca*

- Burnett, R.J., I.E. Maldonado-Mendoza, T.D. McKnight, and C.L. Nessler. 1993. Expression of a 3-hydroxy-3-Methylglutaryl coenzyme A reductase gene from *Camptotheca acuminata* is differently regulated by wounding and methyl jasmonate. *Plant Physiology* 103: 41-48.
- Buta, J. G. and J. F. Worley. 1976. Camptothecin, a selective plant growth regulator. *Journal of Agriculture and Food Chemistry* 24(5): 1085-1086.
- Jain, A.K. and C.L. Nessler. 1996. Clonal propagation of *Camptotheca acuminata* through shoot bud culture. *Plant Cell, Tissue and Organ Culture* 44: 229-233.
- Liu, Z. and J. Adams. 1996. Camptothecin yield and distribution within *Camptotheca acuminata* trees cultivated in Louisiana. *Canadian Journal of Botany* 74: 360-365.
- Liu, Z. and J. Adams. 1998. Seed source variation in camptothecin concentrations of nursery-grown *Camptotheca acuminata* seedlings. *New Forests* 16: 167-175.
- Liu, Z., S.B. Carpenter, and R.J. Constantin. 1997. Camptothecin production in *Camptotheca acuminata* seedlings in response to shading and flooding. *Canadian Journal of Botany* 75: 368-373.
- Liu, Z., S.B. Carpenter, W.J. Bourgeois, Y. Yu, R.J. Constantin, M.J. Falcon, and J.C. Adams. 1998. Variations in the secondary metabolite camptothecin in relation to tissue age and season in *Camptotheca acuminata*. *Tree Physiology* 18: 265-270.
- Liu, Z., J.C. Adams, H.P. Viator, R.J. Constantin, and S.B. Carpenter. 1999. Influence of soil fertilization, plant spacing, and coppicing on growth, stomatal conductance, abscisic acid, and camptothecin levels in *Camptotheca acuminata* seedlings. *Physiologia Plantarum* 105: 402-408.
- Lopez-Meyer, M., C. L. Nessler, and T.D. McKnight. 1994. Sites of accumulation of the antitumor alkaloid camptothecin in *Camptotheca acuminata*. *Planta Medica* 60:558-560.
- Lu, H., D. Henning, K. Patel, L. Brown, T. Toeh, and T.D. McKnight. 1996. Molecular biology of camptothecin production. *Plant Physiology* (abstract): 618.
- McKnight, T. D. and D. D. Henning. 1994. Camptothecin, an anti-cancer alkaloid from *Camptotheca acuminata* (Nyssaceae). Pp. 149-158 in *Conservation of plant genes II: Utilization of ancient and modern DNA*, eds. R. P. Adams, J. S. Miller, E. M. Golenberg, and J. E. Adams. Missouri Botanical Garden, St. Louis, Missouri.
- Yao, J.X. et al. 1997. Superiority of *Camptotheca acuminata* seedlings. *Journal of Zhejiang Forestry College* 14: 134-141. (Chinese)
- Zhou, Y.X. 1989. Study on the characteristics of seed dormancy and germination of *Camptotheca acuminata*. *Forestry Technical Newsletter* 8: 22-25. (Chinese)

## Plant Management of *Camptotheca*

- Cao, G.R., J.X. Gao, D.X. Duan, S.J. Li, and K. Wang. 1992. Studies on *Camptotheca acuminata* leaves: main toxic principle, poisoning, and treatment in goats. In L.F. James *et al.* (eds.), Poisoning Plants: Proceedings of the Third International Symposium; . pp. 506-508. Iowa State University Press, Ames.
- Editorial Committee of Chinese Flora of Woody Plants. 1983. Silviculture of major Chinese afforestation species. China Forestry Press, Beijing. (in Chinese)
- Forestry Department of Guangxi and Guangxi Association for Foresters. 1980. Silviculture of hardwoods. Guangxi People's Press, Nanning. (in Chinese)
- Perdue, R.E. 1970. Chinese tree yield cancer-inhibiting drug. ? May-June.
- Perdue, R.E., R.L. Smith, M.E. Wall, J.L. Hartwell, and B.J. Abbot. 1970. *Camptotheca acuminata* Decaisne (Nyssaceae) source of camptothecin, and antileukemic alkaloid. Agricultural Research Series, USDA Technical Bulletin No. 1415.
- Perdue, R. E. 1968. *Camptotheca acuminata* Source of promising cancer drug. Lasca Leaves September: 55-59.
- Perdue, R. E., M. E. Wall, J. L. Hartwell, *et al.* 1968. Comparison of the activity of crude *Camptotheca acuminata*, ethanolic extracts against lymphoid leukemia L-1210. Lloydia 31: 299.
- Smith, R. L. 1969. *Camptotheca acuminata*, biography of camptothecin, a promising cancer drug. Lasca Leaves 9-10: 55-59.
- Vincent, R.M., M. Lopez-Meyer, T.D. McKnight, and C.L. Nessler. 1997. Sustained Harvest of camptothecin from the leaves of *Camptotheca acuminata*. Journal of Natural Products 60: 618-619.
- Yang, S. Z. and D. M. Wang. 1979. *Camptotheca acuminata* Decne. Yunnan Forestry Science and Technology 1979(2-3): 22-27. (in Chinese)

## Pruning in Other Plants

- Bedker, P.J., J.G. O'Brien, and M.E. Mielke. 1995. How to prune trees. NA-FR-01-95, Forest Service, USDA.
- Cook, A.D. (ed.). 1991. Pruning techniques. Brooklyn Botanical Garden, Brooklyn.
- Medic, K. 1995. Rodale's successful organic gardening: Pruning. Rodale Press, Emmaus.
- Wade, G.L. and R.R. Westerfield. 1999. Basic principles of pruning woody plants. Cooperative Extension Services, College of Agriculture & Environmental Sciences, University of Georgia, Athens.

## **Mechanism of CPTs as Anti-cancer Drugs**

- Deng, C. Z., S. Abubaker, M. P. Fons, I. Boldogh, and T. Albrecht. 1992. Modulation of the frequency of human cytomegalovirus-induced chromosome aberrations by camptothecin. *Virology* 189: 397-401.
- Liu, L.L., P. Duann, C.T. Lin, P. D'arpa, and J. Wu. 1997. Mechanism of action of camptothecin. *Annals of the New York Academy of Sciences* 803: 44-49.
- Priel, E., E. Aflalo, G. Chechelnitsky, D. Benharroch, M. Aboud, and S. Segal. 1993. Inhibition of retrovirus-induced disease in mice by camptothecin. *Journal of Virology* 67: 3624-3629.
- Slichenmyer, W.J., E.K. Rowinsky, R.C. Donehower, and S.H. Kaufmann. 1993. The current status of camptothecin analogues as antitumor agents. *Journal of the National Cancer Institute* 85(4): 271-291.

## **Preservation of Plant Matters (Non-camptotheca Plants)**

- Craig, S. and L. A. Staehelin. 1988. High pressure freezing of intact plant tissues. Evaluation and characterization of novel features of endoplasmic reticulum and associated membrane systems. *European Journal of Cell Biology* 46: 80-93.
- Hagerman, A.E. 1988. Extraction of tannin from fresh and preserved leaves. *Journal of Chemical Ecology* 14: 453-461.
- Orians, C.M. 1995. Preserving leaves for tannin and phenolic glycoside analysis: A comparison of methods using three willow taxa. *Journal of Chemical Ecology* 21(9): 1235-1243.
- Studer, D., H. Hennecke, and M. Muller. 1992. High-pressure freezing of soybean nodules leads to an improved preservation of ultrastructure. *Planta* 188: 155-163.



### **Ethnic Uses of *Camptotheca***

- Anonymous. 1981. Major economic trees in Hunan. Hunan Science and Technology Press, Changsha (Chinese)
- Ran, X. D. (ed.). 1993. Zhong Hua Yao Hai (encyclopaedia of Chinese herbs). Harbin Press, Harbin. (Chinese)
- Yang, C. L., ed. 1993. Poisonous herbs. China Press of Traditional Chinese Medicine, Beijing. (Chinese)
- Yu, Z. X. and J. D. Hao. 1984. Culture and utilization of medicinal trees. China Forestry Press, Beijing (Chinese).
- Zhejiang Bureau of Health. 1972. Zhejiang Min Jian Chang Yong Cao Yao. Zhejiang People's Health Press, Hangzhou (Chinese).